

Docket No. UT-033044
Rebuttal Testimony of Arleen M. Starr
Exhibit AMS-3T
February 20, 2004
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1 between price cap rates and pricing flexibility rates.¹⁰ Again, AT&T believes its
2 assumptions are appropriate. Qwest has presented no evidence to support any
3 other methodology. Therefore, Qwest's criticism should be rejected.

4 **3. Unsupported Equipment Costs for Multiplexing Equipment and**
5 **Maintenance**

6
7 Qwest claims that the equipment costs for multiplexing equipment and
8 maintenance are unsupported. Filed with the direct testimony supporting the DSO
9 cross over analysis was Exhibit JFF-3 which provided information on the Adtran
10 equipment, consisting of the Adtran Total Access 750 Channel Bank, an Adtran
11 AC/DC Power Supply and Battery Charger and an Adtran Battery Backup.
12 Exhibit JFF-4 provided information on the Edgelink 100 product. Attached as
13 Exhibit AMS-5 is additional support for this equipment providing documentation
14 for the price quotes used in the analysis from the ComputerAnimal.com website
15 for the Adtran equipment. Support for the cost estimate of the Edgelink 100
16 multiplexer is provided in the AT&T Impairment Tools, Explanation and
17 Documentation of Input Values, Exhibit DD-4, section 9.1 at page 21. The
18 maintenance rate used in the cross over analysis is from Qwest's Statement of
19 Generally Available Terms ("SGAT"), Section 9.20.18 Repair of Equipment at a
20 rate of \$32.00 per ½ hour during business hours. This rate is converted into an

⁹ The disconnect rate of \$27.99 is the same for the basic or the coordinated with cooperative testing installation options.

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1 hourly rate of \$64.00 and the cost for 1/3 of a visit of \$21.33 is used in calculating
2 the maintenance expense. Taken together, AT&T has fully supported the
3 equipment costs and maintenance rates used in its analysis. Qwest has presented
4 no alternative equipment costs or maintenance rates. Accordingly, Qwest's
5 criticisms should be rejected.

6 **B. RESPONSE TO STAFF'S TESTIMONY**

7 **Q. WHAT IS STAFF'S POSITION ON THE CROSS OVER POINT THAT**
8 **SHOULD BE UTILIZED BY THE COMMISSION IN THIS**
9 **PROCEEDING?**

10 A. Staff accepts the DSO four-line limit established by the FCC in defining the mass
11 market.¹¹

12 **Q. HAS STAFF PERFORMED A STATE OR MARKET SPECIFIC**
13 **ANALYSIS AS REQUIRED BY THE FCC ORDER?**

14 A. No.

15 **Q. SHOULD STAFF'S POSITION BE RELIED UPON BY THE**
16 **COMMISSION IN ESTABLISHING A DS0/DS1 CROSS OVER FOR THE**
17 **STATE OF WASHINGTON?**

¹⁰ See Qwest FCC Tariff #1 Access Service Tariff, FCC 5th Revised page 7-140 and page 17-417. The fixed rate is calculated as follows: \$232.50+\$247.50=\$240.00. The per mile rate is calculated as follows: \$63.75+\$30.75=\$47.25.

¹¹ See Testimony of Thomas L. Spinks at 17-18.

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1 A. No. Just as Qwest's position should be rejected, Staff's position should be
2 rejected. Neither Qwest nor Staff has done anything more than rely on the FCC
3 presumption which was found to be inadequate on a state or market specific basis.
4 Staff's position does not comply with the FCC directive to the state commissions
5 to base the DS0/DS1 cross over on a granular analysis.

6 **III. CONCLUSION**

7 **Q. WHAT ARE YOUR OVERALL CONCLUSIONS FOR THE CROSS OVER**
8 **POINT?**

9 A. When a fact-based, quantitative analysis is performed on a granular basis using
10 cost information for Washington, the point at which it is economically rational for
11 a CLEC to use a DS1-based service is when a customer utilizes twelve (12) or
12 more lines at a single location. The evidence presented in AT&T's direct
13 testimony used to arrive at this conclusion is objective, quantitative, granular,
14 specific to Washington and representative of how a CLEC would view a decision
15 to serve a customer with UNE-P or a DS1-based service. The resulting analysis
16 demonstrates that when a customer is served by twelve (12) or more lines at a
17 single location a CLEC should be economically indifferent between UNE-P or
18 DS1 lines to serve that location. The criticisms by Qwest in its response
19 testimony regarding AT&T's analysis are unsupported and do not change
20 AT&T's twelve (12) line result. Qwest's criticisms are immaterial and should be
21 rejected.

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1 Finally, this Commission cannot simply accept the FCC's old four-line limit
2 recommended by Qwest and Staff, without state-specific granular evidence to
3 support that limit. No such evidence has been presented.

4 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

5 **A. Yes.**

**SUMMARY OF THE REBUTTAL TESTIMONY OF
MARK E. ARGENBRIGHT
ON BEHALF OF AT&T COMMUNICATIONS OF THE SOUTHERN
STATES,LLC**

The FCC, in its Triennial Review Order, directs States to determine a crossover point for use in delineating between mass market customers and enterprise customers. This crossover point is the point at which it becomes more economical to serve a customer using multiple analog loops with a DS1.

BellSouth has proposed a crossover point of three or fewer DS0 lines. This is inconsistent with the direction given by the FCC because it fails to consider the point at which it becomes more economical to utilize a DS1 rather than multiple DS0s.

CompSouth has proposed a general formula with which an appropriate economic crossover point can be calculated. AT&T, as a member of CompSouth, supports the straightforward analysis proposed by the CompSouth witness. This rebuttal testimony proposes a crossover point of nine DS0 lines. This crossover point is calculated in a manner consistent with the formula advanced by CompSouth and is supported by a model developed by Sprint for use in the Florida proceeding on this same matter. By populating the Sprint model with North Carolina specific inputs, the resulting calculation indicates that a crossover point of nine is appropriate for use in North Carolina.

**BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION**

Docket No.: P-100, Sub 133q

In the matter of)	
Triennial Review Order – UNE-P)	
)	February 16, 2004
)	
_____)	

**REBUTTAL TESTIMONY OF
MARK E. ARGENBRIGHT
ON BEHALF OF
AT&T COMMUNICATIONS OF THE SOUTHERN STATES, LLC**

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Mark E. Argenbright. My business address is 1200 Peachtree St. NE, Suite 8200, Atlanta, GA 30309.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by AT&T Corp. and hold the position of District Manager, Law and State Government Affairs, providing support for AT&T's regulatory advocacy in the nine states that make up AT&T's Southern Region.

Q. PLEASE SUMMARIZE YOUR TELECOMMUNICATIONS BACKGROUND AND EDUCATION.

A. I graduated from the University of Montana in 1980 and have a Bachelor of Science Degree in Business Administration. I have worked in the telecommunications industry for over 17 years with 15 of those years in the area of regulatory affairs. Prior to being employed by AT&T, I was employed by WorldCom, Inc from 1994 to 2002 with multiple responsibilities including development and coordination of various of the company's regulatory and public policy initiatives for the company's domestic operations. This included acting as a witness in support of such initiatives. Prior to that, I was employed by the Anchorage Telephone Utility (now known as Alaska Communications Systems) as a Senior Regulatory Analyst and American Network, Inc. as a Tariff Specialist.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A. No.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

1 A. To respond to the proposal by BellSouth witness Mr. Ruscilli regarding the
2 appropriate crossover point for use in delineating between mass market customers
3 and enterprise customers in North Carolina and to provide an alternative proposal
4 based on the general formula described by CompSouth witness Mr. Gillan.

5 **Q HOW IS YOUR TESTIMONY STRUCTURED?**

6 A. I will first address the BellSouth proposal and how it fails to consider the
7 direction given by the FCC with regard to the calculation of a crossover point. I
8 will then review the formula described by CompSouth's Mr. Gillan in his direct
9 testimony. Consistent with this formula, I will then propose a more suitable
10 crossover point. Finally, I will describe the calculation, which utilizes a model
11 introduced by Sprint in the state of Florida for the purpose of calculating the
12 crossover point, utilizing North Carolina specific inputs.

13
14 **Q. AT PAGE 8, LINES 12 THROUGH 19, BELL SOUTH WITNESS RUSCILLI**
15 **INDICATES THAT THE APPROPRIATE CROSSOVER POINT WITH**
16 **WHICH TO DELINEATE BETWEEN "MASS MARKET" AND**
17 **"ENTERPRISE" CUSTOMERS IS "THREE OR FEWER DSO LINES."**
18 **DO YOU AGREE?**

19
20 A. No. As explained in the direct testimony of CompSouth's Mr. Gillan, the
21 calculation of a crossover results in establishment of the upper boundary of the
22 mass market "in terms of the number of voice lines a customer may have before
23 the customer should be viewed as an 'enterprise customer.'" Mr. Ruscilli's
24 suggestion that a crossover point of three lines is appropriate fails to consider the

1 FCC's primary direction that a crossover calculation consider the point at which it
2 is more economical for a customer to be served with a DS1 instead of multiple
3 DS0 loops.

4
5 In fact Mr. Ruscilli misquotes the FCC's Order in this regard. Citing to ¶497 of
6 the TRO, Mr. Ruscilli indicates that the FCC's direction is "to define the cross-
7 over point as 'where it makes sense for the multi-line customer to be served via a
8 DS1 loop.'" The FCC's actual direction is clear when ¶497 is cited accurately:

9
10 "This cross over point may be the point where it makes economic sense
11 for a multi-line customer to be served via a DS1 loop." [emphasis added]

12 Failure to consider the point at which it makes more "economic sense" to serve a
13 customer with a DS1 rather than multiple DS0s does not comply with the
14 direction given by the FCC.

15
16
17 Q. IN MR. GILLAN'S DIRECT TESTIMONY, AT PAGE 25, LINES 1
18 THROUGH 14, HE DESCRIBES A GENERAL FORMULA WITH WHICH
19 AN ECONOMIC CROSSOVER POINT COULD BE CALCULATED.
20 PLEASE SUMMARIZE THIS FORMULA.

21
22 A. CompSouth's witness Mr. Gillan proposes, and, as a member of CompSouth,
23 AT&T supports, a "straightforward calculation" whereby the cost of a UNE DS1
24 is compared to the cost of multiple UNE analog loops in order to make a
25 determination as to when, in terms of the number of UNE analog loops, it is more
26 economical to serve a customer with a DS1. The cost of a UNE DS1 must also

1 include the customer premise equipment that is required to utilize DS1 service as
2 well as all the costs of non-recurring activities and installation of such equipment.

3
4 CompSouth's Mr. Gillan illustrates the calculation as follows:

5
6
$$\text{Crossover} = \frac{(\text{CPE} + \text{UNE DS-1})}{\text{UNE Loop}}$$

7
8

9 The costs, recurring and non-recurring, associated with acquiring the UNE DS-1
10 and UNE Loop facilities from the incumbent must be included in the calculation.

11
12 The use of such a formula will result in the determination of the number of analog
13 lines at which it is more economical to serve a customer with a DS1, which is the
14 crossover point. AT&T, as a member of CompSouth, supports CompSouth's
15 proposed approach.

16
17 **Q. DOES COMPSOUTH'S WITNESS DISCUSS OTHER FACTORS THAT**
18 **COULD BE APPROPRIATE TO CONSIDER IN THIS ANALYSIS?**

19
20 **A.** Yes. At page 25, lines 8 through 14, CompSouth's Mr. Gillan explains that the
21 above formula could be made more complicated by including other costs that
22 would be incurred with the use of UNE-L. "... (such as collocation and backhaul)
23 that are not incurred to use UNE-P." AT&T agrees with CompSouth's Mr. Gillan
24 that there are additional costs that could be added to the analysis however, as a
25 member of CompSouth, AT&T supports the straightforward approach and
26 formula proposed by CompSouth's Mr. Gillan.

1
2 **Q. IN NORTH CAROLINA WHAT IS THE APPROPRIATE CROSSOVER**
3 **FOR MULTI-LINE ANALOG LOOP CUSTOMERS WHERE IT**
4 **BECOMES MORE ECONOMIC TO SERVE A MULTI-LINE**
5 **CUSTOMER WITH A DS1?**

6
7 A. Exhibit MEA-1, attached to my testimony, calculates the average economic
8 crossover a competitive local provider would experience in serving an analog
9 customer in the BellSouth territory within the state of North Carolina based on the
10 number of analog voice lines used by the customer.

11
12 The results of this calculation indicate that, up to 9 DS0s at a customer's location,
13 purchasing individual loops is more cost effective or economic than purchasing a
14 single DS1.

15
16 **Q. WHAT IS THE SOURCE OF THIS CALCULATION?**

17
18 A. Sprint Communications, in Florida, filed a model that calculated an economic
19 crossover specific to the State of Florida.¹ This same model has been populated
20 with North Carolina specific inputs and now calculates the North Carolina
21 specific economic crossover proposed above.

22
23 **Q. WHY DO YOU FIND SPRINT'S MODEL A REASONABLE METHOD**
24 **FOR THE DETERMINATION OF THE ECONOMIC CROSSOVER**
25 **POINT BETWEEN MASS MARKET AND ENTERPRISE CUSTOMERS?**

26

¹ Direct Testimony of Kent W. Dickerson, Docket No. 030851-TP, filed December 4, 2003.

1 A. Sprint is an established ILEC with significant experience in providing service to
2 both multiple DS0 served customers as well as DS1 served customers. Their
3 experience and related data provide a reasonable proxy for the circumstances that
4 would be faced by a CLP in North Carolina. Further, their model is consistent
5 with the general calculation described by CompSouth witness Gillan in his direct
6 testimony at page 25, lines 1 through 14 and summarized above.

7
8 **Q. WHAT ARE THE COST COMPONENTS IN THE ECONOMIC COST**
9 **CROSSOVER MODEL FOR THE PROVISION OF SERVICE OVER A**
10 **DS1 FACILITY?**

11
12 A. This model includes the monthly recurring charges of the unbundled network
13 element DS1 loops, the unbundled network element non-recurring charges for
14 DS1 loops, and the monthly costs of a channel bank installed at the customer's
15 premises used to multiplex multiple voice channels onto a DS1 loop facility.

16
17 **Q. WHAT ARE THE COST COMPONENTS IN THE ECONOMIC COST**
18 **CROSSOVER MODEL FOR THE PROVISION OF SERVICE OVER A**
19 **DS0 FACILITY?**

20
21 A. The model includes the monthly recurring charges of the unbundled network
22 element DS0 loops and the non-recurring charges for unbundled network element
23 DS0 loops. The non-recurring charges reflect the charges for the initial DS0 loop
24 and each additional loop ordered.

25

1 **Q. WHAT ARE THE SOURCES OF UNBUNDLED NETWORK ELEMENT**
2 **PRICES FOR THE MONTHLY RECURRING SERVICES AND THE**
3 **NON-RECURRING SERVICES?**

4
5 A. All unbundled network element prices are those approved by the North Carolina
6 Commission in Docket No. P-100, Sub 133d as filed by BellSouth in its SGAT
7 dated July 22, 2002.

8
9 **Q. WHAT IS THE SOURCE OF THE COSTS ASSOCIATED WITH THE**
10 **CHANNEL BANK EQUIPMENT NEEDED FOR THE USE OF A DS1?**

11
12 A. These costs are specific to Sprint in North Carolina and were provided in a
13 proprietary response to a data request submitted by AT&T.

14
15 **Q. WHAT IS THE SOURCE OF THE ACCESS LINE DATA USED TO**
16 **DETERMINE THE WEIGHTED AVERAGE UNE PRICES?**

17
18 A. The access line data are from the HCPM that provided lines by wire center as of
19 2000.

20
21 **Q. WHAT ADDITIONAL VARIABLES ARE INCLUDED IN THE**
22 **CALCULATIONS?**

23
24 A. A weighted average cost of capital input is used for amortizing the non-recurring
25 charges. This weighted average cost of capital is 10.10% as approved for Sprint
26 by the North Carolina Utilities Commission in Docket No. P-100, Sub 133d.

27

1 **Q. HOW ARE THE NON-RECURRING UNBUNDLED NETWORK**
2 **ELEMENT COSTS TREATED IN THE ECONOMIC CROSSOVER**
3 **ANALYSIS?**

4
5 A. The non-recurring unbundled network element charges for establishing DS0 or
6 DS1 services are amortized over a 24 month period using Sprint's weighted cost
7 of capital. In this model the assumption is a 24 month average customer life.

8
9 **Q. HOW IS THE MONTHLY COST OF THE CHANNEL BANK AT A DS1**
10 **CUSTOMER PREMISES CALCULATED?**

11
12 A. The monthly cost of the equipment is calculated by dividing the total material cost
13 over the life of the asset, accounting for Sprint's cost of capital, nine year
14 depreciation life, income tax, maintenance, and sales tax of 7 percent.

15
16 Material prices reflect the size of the channel bank and cards that would be
17 installed at a customer premises capable of multiplexing one DS1 into DS0s. The
18 material was amortized using the annual cost factor provided by Sprint for CT&T.
19 Labor related to the installation of the customer premises channel bank was
20 amortized over 24 months.

21
22 **Q. HOW ARE THESE COST COMPONENTS USED TO CALCULATE AN**
23 **AVERAGE CROSSOVER BETWEEN UNBUNDLED DS0 AND DS1**
24 **LOOPS WITHIN BELL SOUTH'S TERRITORY?**

25

1 A. The Sprint model calculates the UNE provisioning costs of both DS0 and DS1
2 facilities as described above for each central office in the state of North Carolina
3 served by BellSouth. A weighted average cost for each MRC and NRC is
4 computed by multiplying the central office specific result by the percentage of
5 access lines in that central office. The weighted average cost of a DS1 loop is
6 then divided by the weighted average cost of a DS0 loop.

7
8 **Q. WHAT IS THE ECONOMIC CROSSOVER RESULT PRODUCED IN**
9 **THE MODEL?**

10
11 A. The model results indicate that, for up to 9 DS0s at a customer's location,
12 purchasing individual loops is more cost effective, or economic, than purchasing a
13 single DS1. Above 10 DS0s, the DS1 becomes the more cost effective means of
14 providing service to the customer.

15
16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17
18 A. Yes.

TRO Economic Business Case
DS0 to DS1 Cross Over

State = NC
Company = BellSouth

A	B	C	D	E	F
Row	Description	DS1 + Channel Bank	DS0	Cross-Over DS0 Quantity	Cross-Over Rounded DS0 Quantity
10	Weighted Average				
11	MRC	\$101.06	\$15.94		
12	NRC - Ammortized	\$37.38	\$0.90		
13	Total	\$138.44	\$16.84	8.22	9
14					

**BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2003-326-C**

IN RE:)
)
Analysis of Continued Availability of Unbundled)
Local Switching for Mass Market Customers)
Pursuant to the Federal Communications)
Commission's Triennial Review Order)
_____)

REBUTTAL TESTIMONY OF

MARK E. ARGENBRIGHT

ON BEHALF OF

AT&T COMMUNICATIONS OF THE SOUTHERN STATES, LLC

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Mark E. Argenbright. My business address is 1200 Peachtree St. NE,
3 Suite 8200, Atlanta, GA 30309.

4
5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by AT&T Corp. and hold the position of District Manager, Law
7 and State Government Affairs, providing support for AT&T's regulatory
8 advocacy in the nine states that make up AT&T's Southern Region.

9
10 **Q. PLEASE SUMMARIZE YOUR TELECOMMUNICATIONS**
11 **BACKGROUND AND EDUCATION.**

12 A. I graduated from the University of Montana in 1980 and have a Bachelor of
13 Science Degree in Business Administration. I have worked in the
14 telecommunications industry for over 17 years with 15 of those years in the area
15 of regulatory affairs. Prior to being employed by AT&T, I was employed by
16 WorldCom, Inc from 1994 to 2002 with multiple responsibilities including
17 development and coordination of various of the company's regulatory and public
18 policy initiatives for the company's domestic operations. This included acting as a
19 witness in support of such initiatives. Prior to that, I was employed by the
20 Anchorage Telephone Utility (now known as Alaska Communications Systems)
21 as a Senior Regulatory Analyst and American Network, Inc. as a Tariff Specialist.

22 **Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS**
23 **PROCEEDING?**

24
25 A. No.

26 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

1 A. To respond to the proposal by BellSouth witness Ms. Blake regarding the
2 appropriate crossover point for use in delineating between mass market customers
3 and enterprise customers in South Carolina and to provide an alternative proposal
4 based on the general formula described by CompSouth witness Mr. Gillan.

5 **Q HOW IS YOUR TESTIMONY STRUCTURED?**

6 A. I will first address the BellSouth proposal and how it fails to consider the
7 direction given by the FCC with regard to the calculation of a crossover point. I
8 will then review the formula described by CompSouth's Mr. Gillan in his direct
9 testimony. Consistent with this formula, I will then propose a more suitable
10 crossover point. Finally, I will describe the calculation, which utilizes a model
11 introduced by Sprint in the state of Florida for the purpose of calculating the
12 crossover point, utilizing South Carolina specific inputs.

13
14 **Q. AT PAGE 8, LINES 15 THROUGH 20, BELLSOUTH WITNESS BLAKE**
15 **INDICATES THAT THE APPROPRIATE CROSSOVER POINT WITH**
16 **WHICH TO DELINEATE BETWEEN "MASS MARKET" AND**
17 **"ENTERPRISE" CUSTOMERS IS "THREE OR FEWER DSO LINES."**
18 **DO YOU AGREE?**

19
20 A. No. As explained in the direct testimony of CompSouth's Mr. Gillan, the
21 calculation of a crossover results in establishment of the upper boundary of the
22 mass market in terms of the number of voice lines a customer may have before
23 the customer should be viewed as an enterprise customer. Ms. Blake's suggestion
24 that a crossover point of three lines is appropriate fails to consider the FCC's

1 primary direction that a crossover calculation consider the point at which it is
2 more economical for a customer to be served with a DS1 instead of multiple DS0
3 loops.

4
5 In fact Ms. Blake misquotes the FCC's Order in this regard. Citing to ¶497 of the
6 TRO, Ms. Blake indicates that the FCC's direction is "to define the cross-over
7 point as 'where it makes sense for the multi-line customer to be served via a DS1
8 loop.'" The FCC's actual direction is clear when ¶497 is cited accurately:

9
10 "This cross over point may be the point where it makes economic sense
11 for a multi-line customer to be served via a DS1 loop." [emphasis added]
12
13 Failure to consider the point at which it makes more "economic sense" to serve a
14 customer with a DS1 rather than multiple DS0s does not comply with the
15 direction given by the FCC.

16
17 Q. IN MR. GILLAN'S DIRECT TESTIMONY, BEGINNING AT PAGE 25,
18 LINE 14 THROUGH PAGE 26, LINE 9, HE DESCRIBES A GENERAL
19 FORMULA WITH WHICH AN ECONOMIC CROSSOVER POINT
20 COULD BE CALCULATED. PLEASE SUMMARIZE THIS FORMULA.

21
22 A. CompSouth's witness Mr. Gillan proposes, and, as a member of CompSouth,
23 AT&T supports, a "straightforward calculation" whereby the cost of a UNE DS1
24 is compared to the cost of multiple UNE analog loops in order to make a
25 determination as to when, in terms of the number of UNE analog loops, it is more
26 economical to serve a customer with a DS1. The cost of a UNE DS1 must also

1 include the customer premise equipment that is required to utilize DS1 service as
2 well as all the costs of non-recurring activities and installation of such equipment.

3
4 CompSouth's Mr. Gillan illustrates the calculation as follows:

5
6
$$\text{Crossover} = \frac{(\text{CPE} + \text{UNE DS-1})}{\text{UNE Loop}}$$

7
8

9 The costs, recurring and non-recurring, associated with acquiring the UNE DS-1
10 and UNE Loop facilities from the incumbent must be included in the calculation.

11
12 The use of such a formula will result in the determination of the number of analog
13 lines at which it is more economical to serve a customer with a DS1, which is the
14 crossover point. AT&T, as a member of CompSouth, supports CompSouth's
15 proposed approach.

16
17 **Q. DOES COMPSOUTH'S WITNESS DISCUSS OTHER FACTORS THAT**
18 **COULD BE APPROPRIATE TO CONSIDER IN THIS ANALYSIS?**

19
20 **A.** Yes. At page 26, lines 9 through 15, CompSouth's Mr. Gillan explains that the
21 above formula could be made more complicated by including other costs that
22 would be incurred with the use of UNE-L. "... (such as collocation and backhaul)
23 that are not incurred to use UNE-P." AT&T agrees with CompSouth's Mr. Gillan
24 that there are additional costs that could be added to the analysis however, as a
25 member of CompSouth, AT&T supports the straightforward approach and
26 formula proposed by CompSouth's Mr. Gillan.

1
2 **Q. IN SOUTH CAROLINA, WHAT IS THE APPROPRIATE CROSSOVER**
3 **FOR MULTI-LINE ANALOG LOOP CUSTOMERS WHERE IT**
4 **BECOMES MORE ECONOMIC TO SERVE A MULTI-LINE**
5 **CUSTOMER WITH A DS1?**

6
7 A. Exhibit MEA-1, attached to my testimony, calculates the average economic
8 crossover a competitive local provider would experience in serving an analog
9 customer in the BellSouth territory within the state of South Carolina based on the
10 number of analog voice lines used by the customer.

11
12 The results of this calculation indicate that, up to 10 DS0s at a customer's
13 location, purchasing individual loops is more cost effective or economic than
14 purchasing a single DS1.

15
16 **Q. WHAT IS THE SOURCE OF THIS CALCULATION?**
17

18 A. Sprint Communications, in Florida, filed a model that calculated an economic
19 crossover specific to the State of Florida.¹ This same model has been populated
20 with some South Carolina specific inputs and now calculates a specific and
21 reasonable economic crossover point for South Carolina, which is consistent with
22 the economic crossover calculation proposed above.

23
24 **Q. WHY DO YOU FIND SPRINT'S MODEL A REASONABLE METHOD**
25 **FOR THE DETERMINATION OF THE ECONOMIC CROSSOVER**
26 **POINT BETWEEN MASS MARKET AND ENTERPRISE CUSTOMERS?**

1
2 A. Sprint is an established ILEC with significant experience in providing service to
3 both multiple DS0 served customers as well as DS1 served customers. Their
4 experience and related data provide a reasonable proxy for the circumstances that
5 would be faced by a CLEC in South Carolina. Further, *their model is consistent*
6 *with the general calculation described by CompSouth witness Gillan in his direct*
7 *testimony and summarized above.*

8
9 **Q. WHAT ARE THE COST COMPONENTS IN THE ECONOMIC COST**
10 **CROSSOVER MODEL FOR THE PROVISION OF SERVICE OVER A**
11 **DS1 FACILITY?**

12
13 A. This model includes the monthly recurring charges of the unbundled network
14 element DS1 loops, the unbundled network element non-recurring charges for
15 DS1 loops, and the monthly costs of a channel bank installed at the customer's
16 premises used to multiplex multiple voice channels onto a DS1 loop facility.

17
18 **Q. WHAT ARE THE COST COMPONENTS IN THE ECONOMIC COST**
19 **CROSSOVER MODEL FOR THE PROVISION OF SERVICE OVER A**
20 **DS0 FACILITY?**

21
22 A. The model includes the monthly recurring charges of the unbundled network
23 element DS0 loops and the non-recurring charges for unbundled network element
24 DS0 loops. The non-recurring charges reflect the charges for the initial DS0 loop
25 and each additional loop ordered.

¹ Direct Testimony of Kent W. Dickerson, Docket No. 030851-TP, filed December 4, 2003.

1
2 **Q. WHAT ARE THE SOURCES OF UNBUNDLED NETWORK ELEMENT**
3 **PRICES FOR THE MONTHLY RECURRING SERVICES AND THE**
4 **NON-RECURRING SERVICES?**

5
6 A. All unbundled network element prices are those approved by the South Carolina
7 Public Service Commission in Docket No. 2001-209-C, Order No. 2002-77.

8
9 **Q. WHAT IS THE SOURCE OF THE ACCESS LINE DATA USED TO**
10 **DETERMINE THE WEIGHTED AVERAGE UNE PRICES?**

11
12 A. The access line data are from the FCC's HCPM (Hybrid Cost Proxy Model) that
13 provided lines by wire center as of 2000.

14
15 **Q. WHAT ADDITIONAL VARIABLES ARE INCLUDED IN THE**
16 **CALCULATIONS?**

17
18 A. A weighted average cost of capital input is used for amortizing the non-recurring
19 charges. This weighted average cost of capital is 13.07%. This utilizes the cost
20 of capital calculated by the FCC in the recent Verizon-Virginia WorldCom
21 Arbitration Order.²

22
23 **Q. HOW ARE THE NON-RECURRING UNBUNDLED NETWORK**
24 **ELEMENT COSTS TREATED IN THE ECONOMIC CROSSOVER**
25 **ANALYSIS?**

² CC Docket No. 00-218, In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation

1
2 A. The non-recurring unbundled network element charges for establishing DS0 or
3 DS1 services are amortized over a 24 month period using the weighted cost of
4 capital. In this model the assumption is a 24 month average customer life.

5
6 **Q. HOW IS THE MONTHLY COST OF THE CHANNEL BANK AT A DS1**
7 **CUSTOMER PREMISES CALCULATED?**

8
9 A. The monthly cost of the equipment is calculated by dividing the total material cost
10 over the life of the asset, accounting for the cost of capital, nine year depreciation
11 life, income tax, maintenance, and sales tax of 7 percent.

12
13 Material prices reflect the size of the channel bank and cards that would be
14 installed at a customer premises capable of multiplexing one DS1 into DS0s. The
15 material was then amortized. Labor related to the installation of the customer
16 premises channel bank was amortized over 24 months.

17
18 **Q. HOW ARE THESE COST COMPONENTS USED TO CALCULATE AN**
19 **AVERAGE CROSSOVER BETWEEN UNBUNDLED DS0 AND DS1**
20 **LOOPS WITHIN BELL SOUTH'S TERRITORY?**

21
22 A. The Sprint model calculates the UNE provisioning costs of both DS0 and DS1
23 facilities as described above for each central office in the state of South Carolina
24 served by BellSouth. A weighted average cost for each MRC and NRC is
25 computed by multiplying the central office specific result by the percentage of